We claim:

1. A method for detecting the presence or absence of a mutation associated with hypertrophic cardiomyopathy for facilitating the diagnosis of hypertrophic cardiomyopathy, comprising:

amplifying ß cardiac myosin heavy-chain DNA forming an amplified product; and

detecting the presence or absence of a mutation associated with hypertrophic cardiomyopathy in the amplified product thereby facilitating the diagnosis of hypertrophic cardiomyopathy.

2. The method of claim 1 wherein the hypertrophic cardiomyopathy is familial hypertrophic cardiomyopathy, or sporadic hypertrophic cardiomyopathy.

3. The method of claim 2 wherein the mutation associated with hypertrophic cardiomyopathy is a point mutation or a missense mutation.

4. The method of claim 1 wherein the mutation associated with hypertrophic cardiomyopathy is of a size less than the amplified product.

5. The method of claim 1 wherein the ß cardiac myosin heavy-chain DNA is cDNA reverse transcribed from RNA.

6. The method of claim 5 wherein the RNA is obtained from nucleated blood cells.

7. The method of claim 1 wherein the presence or absence of the mutation associated with hypertrophic cardiomyopathy is detected by combining the amplified product with an RNA probe completely hybridizable to normal ß cardiac myosin heavy-chain DNA forming a hybrid double strand having an RNA and DNA strand, the hybrid double strand having an unhybridized portion of the RNA strand at any portion corresponding to a hypertrophic cardiomyopathy associated mutation in the DNA strand; and

detecting the presence or absence of an unhybridized portion of the RNA strand as an indication of the presence or absence of a hypertrophic cardiomyopathy associated mutation in the corresponding portion of the DNA strand.

8. The method of claim 2 wherein the presence or absence of the mutation associated with familial hypertrophic cardiomyopathy is detected by combining the amplified product with an RNA probe completely hybridizable to normal ß cardiac myosin heavy-chain DNA forming a hybrid double strand having an RNA and DNA strand, the hybrid double strand having an unhybridized ribonucleotide of the RNA strand at any portion corresponding to a familial hypertrophic cardiomyopathy associated point mutation in the DNA strand;

contacting the hybrid double strand with an agent capable of digesting an unhybridized portion of the RNA strand; and

detecting the presence or absence of an unhybridized ribonucleotide of the RNA strand as an indication of the presence or absence of a familial hypertrophic cardiomyopathy associated point mutation in the corresponding deoxyribonucleotide of the DNA strand.

9. The method of claim 1 wherein the ß cardiac myosin heavy-chain DNA is amplified using a polymerase chain reaction.

10. The method of claim 9 wherein the polymerase chain reaction is performed with nested primers.

11. The method of claim 1 wherein said hypertrophic cardiomyopathy-associated mutations are selected from the group consisting of G832A; C1443T; G1836C; G1902A; G2856A; and G2931A.

12. A method according to claim 1 further comprising detecting the presence of more than one target sequence in said DNA.

13. A method according to claim 12 wherein said more than one target sequence is a hypertrophic cardiomyopathy-associated mutation selected from the

group consisting of G832A; G1294A; C1443T; G1836C; G1902A; G2856A; and G2931A.

14. A method of claim 1, wherein the ß cardiac myosin heavy-chain RNA is obtained from a from said sample a cell sample from a subject being tested for hypertrophic cardiomyopathy; and

diagnosing the subject for hypertrophic cardiomyopathy by detecting the presence or absence of a familial hypertrophic cardiomyopathy-associated mutation in the RNA as an indication of hypertrophic cardiomyopathy.

15. A method of claim 14, wherein the method for diagnosing hypertrophic cardiomyopathy is non-invasive.

16. A set of DNA oligonucleotide primers for amplifying ß-cardiac myosin heavy-chain DNA comprising, at least two oligonucleotides which amplify ß-cardiac myosin heavy-chain DNA, said set of oligonucleotide primers being useful for facilitating the diagnosis of hypertrophic cardiomyopathy by being capable of detecting a hypertrophic cardiomyopathy-associated mutation.

17. The set of primers of claim 16 having at least four oligonucleotides.

18. The oligonucleotide primers for amplifying β-cardiac myosin heavy-chain DNA of claim 16, said primers comprising at least two oligonucleotides wherein each of the oligonucleotides is selected from the group consisting of:

5' CAAGGATCGCTACGGCTCCTGGAT 3' (SEQ ID NO:1),

5' GCGGATCCAGGTAGGCAGACTTGTCAGCCT 3' (SEQ ID NO: 2),

5' ATGCCAACCCTGCTCTGGAGGCCT 3' (SEQ ID NO: 3),

5' CTTCATGTTTCCAAAGTGCATGAT 3' (SEQ ID NO: 4),

5' CTGGGCTTCACTTCAGAGGAGAAAA 3' (SEQ ID NO: 5),

5' GCGGTACCCCAGCAGCCCGGCCTTGAAGAA 3' (SEQ ID NO: 6),

5' GGGAATTCGCGGAGCCAGACGGCACTGAAG 3' (SEQ ID NO: 7),

5' CCCTCCTTCTTGTACTCCTCCTGCTC 3' (SEQ ID NO: 8),

5' CAACTCATCACCACTCTCTTCCATC 3' (SEQ ID NO: 9), and

5' GCTGAGCCTAGCAGATTCATGGCAC 3' (SEQ ID NO: 10).

19. A kit useful for facilitating the diagnosis of hypertrophic cardiomyopathy, comprising:

a first container holding an RNA probe completely hybridizable to the ß cardiac myosin heavy chain DNA, wherein said RNA probe is capable of detecting a hypertrophic cardiomyopathy-associated mutation;

a second container holding primers useful for amplifying ß cardiac myosin heavy-chain DNA; and

instructions for using the components of the kit to detect the presence or absence of a hypertrophic cardiomyopathy-associated mutation in amplified ß cardiac myosin heavy-chain DNA for facilitating the diagnosis of hypertrophic cardiomyopathy.

20. A kit of claim 19 further comprising a third container holding an agent for digesting unhybridized RNA.